

## ABSTRACT:

A method and device for processing analog color signals, comprising:  
analog preprocessing (3) sensor output signals to obtain analog preprocessed  
signals that cause a reduced amount of digital quantization errors;  
converting (5) the analog preprocessed signals into digital signals;  
5 reconstructing (7) a first basic color signal ( $R$ ), a second basic color signal  
( $G$ ), and a third basic color signal ( $B$ ) from the digital signals; and  
correcting (9) the basic color signals to obtain standardized signals, in which a  
three color signal matrix containing the first, second and third basic color signals ( $R$ ,  $G$ ,  $B$ )  
is multiplied by a correction matrix containing coefficients that depend on the analog  
10 preprocessing (3).

In a first embodiment, the analog preprocessing includes a white balance  
adjustment. In a second embodiment, the horizontal sum values of the correction matrix are  
adjusted to one for horizontal sum values larger than one, with the analog preprocessing  
comprising a corresponding multiplication in the analog preprocessing to ensure to the  
15 overall processing multiplication remains the same as in the prior art.

The invention further relates to a color camera comprising an RGB Bayer  
sensor for generating the sensor output signals, and the above-mentioned processing device.

(Fig. 1)